

1 ABSTRACT

2 A method for treating metal-working fluid comprises the steps of: a) transferring the
3 metal-working fluid into a heating vessel; b) heating the metal-working fluid in the heating
4 vessel to maintain the fluid at an elevated temperature during a heating period; c) agitating and
5 aerating the fluid during the heating period; d) transferring the fluid out of the heating vessel into
6 a holding vessel after the heating period; and e) transferring the fluid out of the holding vessel.
7 The fluid may pass through a particle filter before entering the heating vessel, where it may be
8 heated to between about 145° F and about 210° F for at least about 30 minutes. During heating,
9 heated ambient air may be drawn through air inlets and through the fluid to agitate and aerate the
10 fluid, thereby ensuring uniform heating and extracting gaseous contaminants. Mist and gaseous
11 contaminants are removed from the airflow prior to its release into the environment. After the
12 heating period the treated metal-working fluid is transferred into a holding vessel and ultimately
13 back to a metal-working machine for re-use. An apparatus for treating metal-working fluid
14 comprises: a) a heating vessel; b) a heater for heating the fluid in the heating vessel to an
15 elevated temperature to maintain the fluid at the elevated temperature during a heating period; c)
16 an agitator for agitating the fluid during the heating period; d) an aerator for aerating the fluid
17 during the heating period; e) a holding vessel; and f) a pump for transferring the metal-working
18 fluid from the heating vessel into the holding vessel after the heating period.